

METHOD FOR REACTIVE ION ETCHING OF NIOBIUM ON SILICON

Patent number: SU1289305
Publication date: 1996-12-10
Inventor: REDKIN S V (SU); YUNKIN V A (SU); RAPPO L N (SU); STARKOV V V (SU)
Applicant: INST T MIKROELEKTRONIKI I OSOB (SU)
Classification:
- **international:** H01L21/306
- **european:**
Application number: SU19853893604 19850506
Priority number(s): SU19853893604 19850506

Abstract not available for SU1289305

Data supplied from the *esp@cenet* database - Worldwide

DIALOG(R)File 351:Derwent WPI
(c) 2004 Thomson Derwent. All rts. reserv.

011371437

WPI Acc No: 1997-349344/199732

XRAM Acc No: C97-112696

XRPX Acc No: N97-289641

Reactive ion etching of niobium on silicon - includes adding chlorine
-containing gas-forming compound into plasma of fluorine containing
compound and oxygen and etching

Patent Assignee: AS USSR MICROELTRN ULTRAPURE CPDS INST (ASMI-R)

Number of Countries: 001 Number of Patents: 001

Abstract (Basic): SU 1289305 A

Reactive ion etching of niobium on silicon includes processing
silicon samples in the plasma of a fluorine -containing compound and
oxygen during a reduced pressure. A chlorine -containing compound is
additionally introduced into the plasma during a volume ratio with the
fluorine -containing gas of (0.1-1) : 1. Reactive ion etching process
is carried out during a power density of a discharge of 0.06-1.45 watts
per square cm. During a power on a unit surface of 0.01-1.45 watts per
square cm. the rate of etching of the niobium on the silicon is 130-600
nm per minute.

USE - Used in forming topology of functional layers during
production of integrated circuits and other semiconductor devices.

ADVANTAGE - Increased rate of etching is achieved.

Dwg.0/0

Title Terms: REACT; ION; ETCH ; NIOBIUM ; SILICON; ADD; CHLORINE ;
CONTAIN; GAS; FORMING; COMPOUND; PLASMA; FLUORINE ; CONTAIN; COMPOUND;
OXYGEN; ETCH

Derwent Class: L03; U11

International Patent Class (Main): H01L-021/306